

**CLAIMS:**

What is claimed is:

- 1 1. A method in a data processing system for maintaining  
2 data integrity in logs, the method comprising:  
3 reviewing a log;  
4 determining whether the log contains a data loss;  
5 and  
6 adding data to replace the data loss in the log to  
7 increase integrity of the log if a determination is made  
8 that a data loss has occurred.
- 1 2. The method of claim 1, wherein the log includes a  
2 set of time segments and wherein the determining step  
3 comprises:  
4 analyzing each time segment within set of time  
5 segments to determine whether a time segment gap  
6 tolerance has been exceeded.
- 1 3. The method of claim 1, wherein the data added to  
2 replace the data loss comprises data derived from a prior  
3 log.
- 1 4. The method of claim 1, wherein the data added to  
2 replace the data loss comprises data derived from a set  
3 of prior logs.

1 5. The method of claim 1, wherein the log includes data  
2 indicating at least one of hits, requests, page views,  
3 and sessions.

1 6. The method of claim 2, wherein the analyzing step  
2 includes considering data in at least one time segment  
3 adjacent to a time segment being analyzed.

1 7. The method of claim 1, wherein the log is a Web  
2 server log.

1 8. A method in a data processing system for analyzing a  
2 log, the method comprising:  
3 analyzing a set of time segments in the log to  
4 determine whether a time gap tolerance has been exceeded  
5 for a time segment within the set of time segments; and  
6 responsive to a determination that the time gap  
7 tolerance has been exceeded for the time segment within  
8 the set of time segments, generating an alert.

1 9. The method of claim 8 further comprising:  
2 responsive to detecting the alert, adding data to  
3 time segment to increase the data integrity of the log.

1 10. The method of claim 8, wherein the alert is  
2 presented on a user interface.

1 11. The method of claim 8, wherein the alert is a flag  
2 used by a program to process the log.

1 12. The method of claim 8 further comprising:  
2 calculating a data integrity level for the log.

1 13. The method of claim 8, wherein the set of time  
2 segments include data for at least one of hits, requests,  
3 page views, and sessions.

1 14. A data processing system comprising:  
2 a bus system;  
3 a communications unit connected to the bus system;  
4 a memory connected to the bus system, wherein the  
5 memory includes a set of instructions; and  
6 a processing unit connected to the bus system,  
7 wherein the processing unit executes the set of  
8 instructions to review a log; determine whether the log  
9 contains a data loss; and add data to replace the data  
10 loss in the log to increase integrity of the log if a  
11 determination is made that a data loss has occurred.

1 15. A data processing system comprising:  
2 a bus system;  
3 a communications unit connected to the bus system;  
4 a memory connected to the bus system, wherein the  
5 memory includes a set of instructions; and  
6 a processing unit connected to the bus system,  
7 wherein the processing unit executes the set of  
8 instructions to analyze a set of time segments in the log  
9 to determine whether a time gap tolerance has been

10 exceeded for a time segment within the set of time  
11 segments; and generate an alert in response to a  
12 determination that the time gap tolerance has been  
13 exceeded for the time segment within the set of time  
14 segments.

1 16. A data processing system for maintaining data  
2 integrity in logs, the data processing system comprising:  
3 reviewing means for reviewing a log;  
4 determining means for determining whether the log  
5 contains a data loss;  
6 adding means for adding data to replace the data  
7 loss in the log to increase integrity of the log if a  
8 determination is made that a data loss has occurred.

1 17. The data processing system of claim 16, wherein the  
2 log includes a set of time segments and wherein the  
3 determining means comprises:  
4 means for analyzing each time segment within set of  
5 time segments to determine whether a time segment gap  
6 tolerance has been exceeded.

1 18. The data processing system of claim 16, wherein the  
2 data added to replace the data loss comprises data  
3 derived from a prior log.

1 19. The data processing system of claim 16, wherein the  
2 data added to replace the data loss comprises data  
3 derived from a set of prior logs.

1 20. The data processing system of claim 16, wherein the  
2 log includes data indicating at least one of hits,  
3 requests, page views, and sessions.

1 21. The data processing system of claim 17, wherein the  
2 analyzing means includes considering data in at least one  
3 time segment adjacent to a time segment being analyzed.

1 22. The data processing system of claim 16, wherein the  
2 log is a Web server log.

1 23. A data processing system for analyzing a log, the  
2 data processing system comprising:  
3 analyzing means for analyzing a set of time segments  
4 in the log to determine whether a time gap tolerance has  
5 been exceeded for a time segment within the set of time  
6 segments; and  
7 generating means, responsive to a determination that  
8 the time gap tolerance has been exceeded for the time  
9 segment within the set of time segments, for generating  
10 an alert.

1 24. The data processing system of claim 23 further  
2 comprising:  
3 adding means, responsive to detecting the alert, for  
4 adding data to time segment to increase the data  
5 integrity of the log.

1 25. The data processing system of claim 23, wherein the  
2 alert is presented on a user interface.

1 26. The data processing system of claim 23, wherein the  
2 alert is a flag used by a program to process the log.

1 27. The data processing system of claim 23 further  
2 comprising:  
3 calculating means for calculating a data integrity  
4 level for the log.

1 28. The data processing system of claim 23, wherein the  
2 set of time segments include data for at least one of  
3 hits, requests, page views, and sessions.

1 29. A computer program product in a computer readable  
2 medium for maintaining data integrity in logs, the  
3 computer program product comprising:  
4 first instructions for reviewing a log;  
5 second instructions for determining whether the log  
6 contains a data loss; and  
7 third instructions for adding data to replace the  
8 data loss in the log to increase integrity of the log if  
9 a determination is made that a data loss has occurred.

1 30. The computer program product of claim 29, wherein  
2 the log includes a set of time segments and wherein the  
3 second instructions comprises:

4 sub-instructions for analyzing each time segment  
5 within set of time segments to determine whether a time  
6 segment gap tolerance has been exceeded.

1 31. The computer program product of claim 29, wherein  
2 the data added to replace the data loss comprises data  
3 derived from a prior log.

1 32. The computer program product of claim 29, wherein  
2 the data added to replace the data loss comprises data  
3 derived from a set of prior logs.

1 33. The computer program product of claim 29, wherein  
2 the log includes data indicating at least one of hits,  
3 requests, page views, and sessions.

1 34. The computer program product of claim 30, wherein  
2 the sub-instructions includes considering data in at  
3 least one time segment adjacent to a time segment being  
4 analyzed.

1 35. The computer program product of claim 29, wherein  
2 the log is a Web server log.

1 36. A computer program product in a computer readable  
2 medium for analyzing a log, the computer program product  
3 comprising:

4 first instructions for analyzing a set of time  
5 segments in the log to determine whether a time gap

6 tolerance has been exceeded for a time segment within the  
7 set of time segments; and  
8 second instructions, responsive to a determination  
9 that the time gap tolerance has been exceeded for the  
10 time segment within the set of time segments, for  
11 generating an alert.

1 37. The computer program product of claim 36 further  
2 comprising:

3 third instructions, responsive to detecting the  
4 alert, for adding data to time segment to increase the  
5 data integrity of the log.

1 38. The computer program product of claim 36, wherein  
2 the alert is presented on a user interface.

1 39. The computer program product of claim 36, wherein  
2 the alert is a flag used by a program to process the log.

1 40. The computer program product of claim 36 further  
2 comprising:

3 third instructions for calculating a data integrity  
4 level for the log.

1 41. The computer program product of claim 36, wherein  
2 the set of time segments include data for at least one of  
3 hits (i.e., requests), page views, and sessions.